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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/699,484	10/31/2003	Sun-Ho Kang	051583-0289	3154
27433	7590 11/28/2006	EXAMINER		INER
FOLEY & LARDNER LLP 321 NORTH CLARK STREET			CANTELMO	O, GREGG
SUITE 2800		ART UNIT	PAPER NUMBER	
CHICAGO, I	L 60610-4764		1745	

DATE MAILED: 11/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)		
	10/699,484	KANG ET AL.		
Office Action Summary	Examiner	Art Unit		
	Gregg Cantelmo	1745		
The MAILING DATE of this communication app Period for Reply	pears on the cover sheet with the c	correspondence address		
A SHORTENED STATUTORY PERIOD FOR REPL' WHICHEVER IS LONGER, FROM THE MAILING D. Extensions of time may be available under the provisions of 37 CFR 1.1 after SIX (6) MONTHS from the mailing date of this communication. If NO period for reply is specified above, the maximum statutory period of Failure to reply within the set or extended period for reply will, by statute Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b).	ATE OF THIS COMMUNICATION 36(a). In no event, however, may a reply be tir will apply and will expire SIX (6) MONTHS from the cause the application to become ABANDONE	N. nely filed the mailing date of this communication. (D) (35 U.S.C. § 133).		
Status				
1) Responsive to communication(s) filed on 11 S	eptember 2006.			
2a) This action is <b>FINAL</b> . 2b) ⊠ This action is non-final.				
3) Since this application is in condition for allowa				
closed in accordance with the practice under E	Ex parte Quayle, 1935 C.D. 11, 4	53 O.G. 213.		
Disposition of Claims				
4) ☐ Claim(s) 1-20 is/are pending in the application 4a) Of the above claim(s) is/are withdray 5) ☐ Claim(s) is/are allowed. 6) ☐ Claim(s) 1-20 is/are rejected. 7) ☐ Claim(s) is/are objected to. 8) ☐ Claim(s) are subject to restriction and/or	wn from consideration.			
Application Papers				
9) The specification is objected to by the Examine 10) The drawing(s) filed on 11 September 2006 is Applicant may not request that any objection to the Replacement drawing sheet(s) including the correct 11) The oath or declaration is objected to by the Example 11.	are: a) $\boxtimes$ accepted or b) $\square$ object drawing(s) be held in abeyance. Settion is required if the drawing(s) is obtained.	e 37 CFR 1.85(a). ojected to. See 37 CFR 1.121(d).		
Priority under 35 U.S.C. § 119				
12) Acknowledgment is made of a claim for foreign a) All b) Some * c) None of:  1. Certified copies of the priority document 2. Certified copies of the priority document 3. Copies of the certified copies of the priority application from the International Burea * See the attached detailed Office action for a list	ts have been received. ts have been received in Applicat rity documents have been receiv u (PCT Rule 17.2(a)).	ion No ed in this National Stage		
Attachment(s)  1) Notice of References Cited (PTO-892)  2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  3) Information Disclosure Statement(s) (PTO/SB/08)  Paper No(s)/Mail Date	4) A Interview Summary Paper No(s)/Mail D 5) Notice of Informal I 6) Other:	ate		

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#### **DETAILED ACTION**

## Response to Amendment

- 1. In response to the amendment received September 11, 2006:
  - a. The drawing objections have been withdrawn in light of the replacement drawings and applicant's remarks;
  - b. The previous objections and rejections have been withdrawn in light of the amendment and applicant's remarks;
  - c. The double patenting rejection has been overcome in light of the terminal disclaimer.

### Specification

2. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: The specification does not reasonably teach of compositions wherein X is any other element aside from F. Thus the claims directed to X being S, Cl or I do not appear to have proper antecedent basis in the specification and further lack enablement as described below.

## Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1 and 8-20 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for X being F, does not reasonably provide

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enablement for X being any other element. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make the invention commensurate in scope with these claims. The entire disclosure is specifically devoted to the use of fluorine as the X element and there is no reasonable disclosure as to the use of the other elements in the claimed genus or of the amount of these other species relative to the claimed composition. Furthermore considering that the genus is not limited within a single family in the periodic table there would be a reasonable expectation that the amounts of X for sulfur would not be the same as that of fluorine. Applicant is advised to amend the claim to limit X to fluorine since this is the only reasonably disclosed species for the composition.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The phrase defining M' and X as written appears to define M' and X as being all of these elements present in the composition whereas it appears that the specification defines M' and to a significantly lesser extent X as being particular genus claims.

Applicant is advised to replace the parentheticals of claims 1-20 to appropriate Markush language to overcome this 112 rejection. For example the M' group should be rewritten to be wherein M' is at least one element selected from the group consisting of Mg, Zn, Al, Ga, B, Zr and Ti).

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As well the solutes identified in claims 11, 12, 13 are also indefinite since it is unclear as to what combinations are required and once more appears to use improper Markush language.

Furthermore the group of claim 18 employs improper Markush language and is required that the term "and" be inserted between the last two elements of the genus.

## Allowable Subject Matter

- 5. Claims 1-20 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.
- 6. The following is an examiner's statement of reasons for allowance: none of the prior art of record appear to teach, suggest or render obvious the composition of claims 1-20 wherein the composition positively requires the presence of ach of Li, Ni, Mn, Co, M' as defined as the described general Markush group, O and F as the exemplary element for X.

It should be readily apparent that the previous claims were significantly broader and did not require the presence of each element in the original claim. Applicant has amended the claim to require the presence of each element in the composition of claims 1-20.

JP 2000-243394 discloses a lithium composition which includes Li, Ni, Mn, Co, Al and B (M'), O and F (paragraph [0061]) but the amounts present for at least some of these constituents are significantly different from that of the claimed invention.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably Application/Control Number: 10/699,484 Page 5

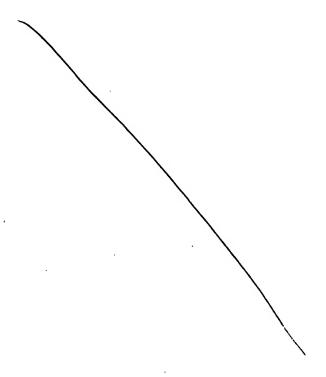
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accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

#### Conclusion

- 7. The Examiner appreciated Mr. Matthew E. Martin's assistance in attempting to address some of the issues above by an Examiner's Amendment however upon further consideration and in light of the additional 112 1<sup>st</sup> and 2<sup>nd</sup> rejections of the claims it became apparent to the Examiner it would clarify prosecution by presenting a new grounds of rejection on the record.
- 8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregg Cantelmo whose telephone number is 571-272-1283. The examiner can normally be reached on Monday to Thursday, 8:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Pat Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

November 21, 2006

Gregg Cantelmo **Primary Examiner** Art Unit 1745